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ABSTRACT

A symposium on the challenges and opportunities facing small institutions as they move into the 21st century was held to allow participants the opportunity to describe their own initiatives and to hear the views of representatives of larger institutions with technology mediated programs. The paper provides an overview of the strategic issues facing small colleges and poses questions about how these institutions might respond. Two points of view are advanced. One argues for an emphasis on traditional values and the traditional mission and little change in the way campuses function, and the other advocates a redefinition of campus activities within the context of traditional values. The paper then presents six case studies illustrating innovative approaches to using information technology to address strategic issues. The paper then poses, but does not answer, questions about how small institutions can best position themselves to benefit from the ideas suggested by the case studies and the symposium discussion. The case studies are: (1) a study in blending, Fairleigh Dickinson University (New Jersey); (2) a study in redesign, Fairfield University (Connecticut); (3) a study in importing, North Central College (Illinois); (4) a study in collaboration, the Associated Colleges of the South; (5) a study in outsourcing, Immaculata College (Pennsylvania); and (6) a study in extending, Regis University (Colorado). (SLD)

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THE PEW LEARNING AND TECHNOLOGY PROGRAM

Redefining Community

Small Colleges in the Information Age

By Carol A. Twigg

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by Carol A. Twigg
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Foreward

We need to remember that these are still the early days of computers on campus. Even educational institutions that were early adopters of information technology made their most significant changes only a few years ago—in the early 1990s.

A mere decade later, information technology has become pervasive on campus—in instruction, advising, research, administration, and even interinstitutional relations. While most students, faculty members, and administrators have been receptive to new ways of doing business, claims for the transformative power of the new technology have been grandiose. The actual experiences of colleges and universities in introducing technology as a supplement to or as a substitute for some traditional functions are more revealing than the rhetoric.

Two hopeful claims dominate this rhetoric: saving money and enriching services. The claim of saving money persists even though it is clear that money is saved only when systematic institutional planning accompanies the introduction of new technology. Costs of replacing computer equipment and of hiring technical support personnel, for example, can be justified only when fresh thought is given to the ways colleges and universities fulfill their purposes.

Important lessons can be learned from institutions that have taken bold, early steps. Most difficult has been the act of substitution: if a new technology-based way of teaching a course or providing an administrative service is more cost-effective or more effectively educationally, the difficult decision remains of eliminating the expense of the earlier ways of operating without violating the mores of the institution.

The other claim, enriching campus services, is easier to validate. Much easier access for students now exists to course registration, the library, course syllabi and readings, and faculty members' "office" hours. Colleges and universities now enrich course offerings through reciprocal arrangements with other institutions. Savings in administrative expense through technology-linked consortia have multiplied. For many colleges and universities, especially small ones, the benefits of technology have come mainly through interinstitutional collaboration.

Yet every survey of colleges and universities indicates that, although the use of technology is growing, there are still many campuses that have not integrated technology into key operations. The sources for this reluctance are easy to understand: anxiety about incurring large capital costs, faculty resistance, and fear of depersonalizing education. These worries, although legitimate, are yielding to the pressures for change. Time may heal all, the transformation of colleges and universities may be inevitable—but many continue to worry about preserving the essential purposes and values of undergraduate education.

Waiting for the inevitable also incurs costs, so there is some urgency to taking the initiative. Happily, there are useful guideposts. Several institutions have provided well-conceived next steps in higher education's uses of technology. The Pew Program in Learning and Technology has persuasively demonstrated that, especially in large introductory courses, it is possible to use technology simultaneously to save money, to improve student success rates, and to raise the overall quality of what students learn. The Teagle Foundation has supported dozens of interinstitutional projects that show the advantages of using technology to share educational and administrative programs and services. The Andrew W. Mellon Foundation has reassured scholars that online scholarly research resources can be reliable and authoritative, with superb version control.

Getting beyond special, externally supported projects to demonstrate the benefits of using technology (and the cautionary lessons) remains a big challenge. The Pew Program in Learning and Technology took a big step forward in this direction when it decided, in collaboration with the Council of Independent Colleges, to hold a symposium on the uses of technology in small and medium-sized institutions of higher education. The results of the candid symposium discussion are reported in the following pages. My hope is that the clarification of what is realistic and what is possible, as detailed in this paper, will help colleges and universities make better-informed choices—choices that will be reflected in faculty debates about pedagogy, in purchasing and leasing decisions, and in students' modes of learning.

Richard Ekman
President
Council of Independent Colleges

Introduction

The diffusion of information technology (IT) throughout society in general and higher education in particular presents both opportunities and challenges for all institutions. Small, residential liberal arts colleges, especially those that depend primarily on tuition for financing, face issues that are unique to their sector. Can IT offer solutions that address the resource constraints confronting these institutions? Under what circumstances can methods developed at larger institutions for improving academic quality and controlling costs transfer effectively to the small-college environment? What is the appropriate balance between face-to-face and online instruction, given the distinctive features of these institutions? What are the pros and cons of collaboration? What new approaches being pioneered by peer institutions may be transferable to others?

On October 9–10, 2001, a group of higher education leaders gathered at the Planter's Inn in Charleston, South Carolina, to discuss these and other issues facing small institutions as they move into the twenty-first century. The topic was "Small Colleges in the Information Age: Challenges and Opportunities." This symposium was the fifth of the Pew Symposia in Learning and Technology, whose purpose is to conduct an ongoing national conversation about issues related to the intersection of learning and technology. The symposium was co-sponsored by the Council of Independent Colleges.

Symposium participants fell into two categories. The first category consisted of leaders from small institutions, many of which have developed innovative approaches for using technology to deal with the strategic issues facing this sector. The second category included noted higher education thinkers on the topic of technology-mediated programs; these participants were not from small institutions. By joining those with a broad understanding of information technology and its potential impact on institutional structures and programs with those responsible for leading their institutions on a day-to-day basis, we hoped to point the way toward innovative solutions that could be implemented in a broad range of small institutions.

> Small colleges face many of the same challenges that confront all institutions of higher education, such as changing societal expectations, increasing competition, and rising costs, but their situation has a special twist because of their size and their distinct culture.

Even though small-to-medium-sized private institutions have much in common with one another, particularly when contrasted with large public institutions, we focused on the 600 or more regional or local institutions rather than the 50–100 better-known national colleges. The latter institutions are wealthier and more selective, have clear missions, are largely residential, expect faculty research, and have IT staffs with significant expertise and access to national best practices. On the other hand, the former are very tuition-dependent, have smaller to minimal endowments and lower tuitions, have multiple missions as a result of adding programs to compete, set heavier teaching loads, and have small IT staffs often with relatively little expertise. Although many of the solutions discussed in this paper are relevant to the national group of small colleges, they may be more applicable to the less-well-endowed regional and local institutions because of the immediate pressures theses institutions face.

We began our discussion in Charleston by asking participants the following question: "Is small size a benefit or a liability?" Noting that all institutions of higher education confront a variety of societal pressures requiring change, those who believe small size is a benefit cite the familiar maxim that a small ship is easier to turn around than the Queen Mary. Because smaller institutions are not as complex, they are more flexible and more agile and therefore have a greater opportunity to change, provided the right leadership is in place. The flip side of the coin is that small size can be a strength as long as the institution is not too small. As one participant put it, "I can't name two small colleges that aren't interested in growing." Scale (or lack of it) is a problem. On the technology issue alone, size is important: being small is a clear disadvantage.

Small colleges face many of the same challenges that confront all institutions of higher education, such as changing societal expectations, increasing competition, and rising costs, but their situation has a special twist because of their size and their distinct culture. At first glance, large and small institutions appear to have little in common. Large institutions have the advantage of greater resources and greater curricular breadth, but they suffer from the disadvantages that go along with large size: impersonality, bureaucracy, lack of focus on teaching and learning, and so on. Small institutions are in the reverse situation: they tend to have a greater sense of community and a more personal focus on individual students, but they lack the advantages of a large resource base and economies of scale. In both cases, the rise of IT on and off campus adds a particular spin to each of the issues the institutions face.

We next asked the roundtable participants to consider another question: "How can small colleges use IT to gain the advantages of large institutions?" We know that many large institutions are using IT to gain the advantages of "small" by creating small learning cohorts within large courses or small honors colleges within large universities. In describing its redesign of the introductory statistics course under the auspices of the Pew Grant Program in Course Redesign, Penn State titles its presentations, "Honey, I Shrunk the Course." What these institutions have discovered is that "small" is merely a proxy for personalized attention to the learning needs of students—something that simply being small does not guarantee. Can small colleges find analogous ways to use IT to overcome their particular disadvantages while playing on their strengths?

This paper is organized as follows:

- The paper first provides an overview of the strategic issues facing small colleges and poses some questions about how these institutions might respond. These are the primary issues driving change throughout the small-college community. How institutions choose to respond to these issues will play a crucial role in their futures.
- The paper then describes two points of view about how to respond. One argues for an emphasis on traditional values and the traditional mission and for little change in the ways campuses function. The other advocates a redefinition of campus activities within the context of traditional values and the traditional mission. The fundamental difference between the two is a change in how we define community at small institutions.
- Building on the notion of redefining community, the paper then presents six case studies illustrating innovative approaches to using IT to address strategic issues. Small institutions are situated at many points along a continuum of possible change. An institution's current mission and characteristics, as well as its responses to the drivers of change, will be significant factors in determining its future placement on that continuum.
- Finally, the paper poses—but does not answer—a number of questions about how small institutions can best position themselves to benefit from the ideas suggested by the case studies and the symposium discussion.

This paper, like the discussion in Charleston, builds on the good work of the individuals who participated, both virtually and in real time. Before our meeting, a number of them submitted written answers to a series of questions, and their responses, elaborated by the discussion, have been included in this paper. In addition, several participants assisted in the development of the six case studies.

The goal of the Pew Symposia is to approach topics related to learning and technology from a public-interest perspective. Many constituencies bring self-interested agendas to discussions about technology: administrators worry about facing competitors; faculty worry about keeping jobs; and vendors worry about selling particular hardware and software. So too do different segments of the higher education community bring competing agendas that often reflect political considerations first and quality concerns second. The Pew Symposia are intended to produce thoughtful analyses and discussions that serve the larger good. Please let us know if we have met that goal.

Strategic Issues Facing Small Colleges

Changes within higher education occur in response to shifts in both external and internal environments, and the context within which higher education functions today is changing dramatically. Keeping pace with a rate of change that seems to be escalating is a major challenge. As a major driver of these shifts, information technology is challenging higher education to see the world differently and to fashion new ways of identifying goals, solving problems, and organizing itself. These challenges are, of course, common to all institutions of higher education, but small institutions face them in the context of a unique set of circumstances. The following is a list of what symposium participants identified as the most important strategic issues facing small liberal arts colleges as they move into the twenty-first century, along with some questions designed to stimulate further thinking.

Changing Expectations

Small colleges appear to be caught in a potential conflict between the "external," or expectations from outside their institutions, and the "internal," or their traditional ways of operating. In many cases, information technology is a major contributor to these new dynamics.

Shifts in Students' Educational Goals

National surveys of freshmen and the symposium participants' own experiences indicate a shift in students' academic goals: from liberal arts study to career preparation. At large universities, professional programs continue to grow while the liberal arts programs continue to decline. Many prospective students and their parents view liberal education as too expensive and not leading to jobs. Businesses appear to be less concerned with degrees and more focused on certification. As one participant put it, the trivium and quadrivium may not be sufficient for the small college in the future. As students and parents continue to seek professional programs, the challenge is to balance resources, students' demands, and mission.

How can small colleges keep pace with the seeming sea change of students and their families who want education to be relevant? Is it possible for small institutions with little endowment to offer excellent liberal arts education and professional programs?

Demands for Greater Breadth and Depth

Globalization and the knowledge explosion have greatly increased the scope of what students are looking for in majors and areas of specialization. Meeting the growth in content domains and in specialized topics within those domains presents a special challenge. Small colleges struggle with breadth of offerings, especially in regard to the full range of professional courses, and with depth of the liberal arts offerings. The liberal college can be perceived as being dwarfed in the knowledge explosion because there is just too much that it cannot offer.

Will small colleges be able to keep up with the plethora of new programs that students are demanding with each new tidal wave of change?

Better, Faster Services—Especially IT Services

Small colleges are confronted with what one participant called the "revolution of rising expectations" of students and parents. Prospective students expect to see such things as state-of-the-art athletic facilities and dorms with single rooms. Technology presents special challenges. Many students, both adults and young people, come to campus with well-developed skills in using technology. Students today expect a bricks-and-clicks service environment. For them, the Internet is a natural, almost invisible part of the environment rather than something that needs to be discussed and debated. They expect the campus technology environment to be fast, reliable, and ubiquitous, and they want to access learning resources and student services online. Providing adequate IT services is a competitive imperative for all colleges and universities, but it is one that weighs heavily on small colleges.

If institutions cannot meet these expectations, will prospective students go elsewhere?

New Learning Models

Increasing demand, from both employers and potential students, for just-in-time, lifelong learning seems in many ways to be antithetical to the traditional approaches to baccalaureate education that have defined the liberal college. Demands for such things as parallel work and learning

opportunities, more modularized learning tied to specific personal and professional needs, and practical, applied knowledge tax the structural and pedagogical assumptions of traditional residential colleges, which are predicated on a faculty-centered model. One participant dubbed this the new "digital divide." As more tech-savvy students arrive on campus expecting discovery-based learning experiences, talk-and-chalk approaches will seem outdated.

At this point, most students are unfamiliar with the power of information technology to individualize and customize the learning environment. When presented with opportunities to study in new ways, however, they learn quickly and respond to more individualized learning models. Students value personalized attention and just-in-time intervention when they have a problem; they do not value sitting through classes that repeat what is included in the text or what they already know. Adult students who bring experience from the workplace have an even lower tolerance of old-fashioned methodologies. As more colleges and universities use IT effectively in teaching and learning and as customized learning options become more diffused, students will regard these opportunities as something every institution should offer.

Just as today's potential students do not ask if the dorm room includes a bed, will tomorrow's prospective students expect strong learning environments infused with technology to be a part of campus life?

Increasing Competition

Small, residential liberal arts colleges face significant challenges as they assert their unique visions and missions while adapting to a changing set of societal expectations and a rapidly changing competitive mix for higher education. Increasingly, more educational options are available to a broader spectrum of potential students. As a consequence, small institutions face increasing competition, not just from peer institutions but from a wide variety of education providers. Symposium participants viewed three types of new providers as particularly potent threats.

Online Providers

Small colleges face increasing competition from big-name providers, especially those with more-flexible delivery mechanisms. Small colleges are vulnerable to new competition from institutions that use a blend of online and on-site academic programming to provide the advantages of both a residential and an online experience. Most small colleges are not branded nationally as "elite" liberal arts colleges; their recognition is instead regional. With their ability to market nationally, these competing providers may attract potential liberal arts students from smaller colleges that do not market as aggressively and effectively. Using the Internet, outside providers, including both institutions and consortia, can invade the small institution's market and offer a richer array of courses than can the liberal college.

How will small institutions compete with well-funded providers that offer convenient alternatives to the residential experience?

For-Profit Providers

A new set of proprietary and corporate competitors, with an emphasis on career and professional development, has entered the higher education market, driven by the student-demand shifts discussed above. The competition for nontraditional students is especially fierce. For-profit institutions have deep pockets to market aggressively and invest in research and development. These new competitors are increasingly driving the demands for change.

How will liberal arts institutions compete with providers that are more aligned with the changing expectations of students and parents?

Technologically Sophisticated Providers

Small colleges face competition from institutions with more sophisticated and robust technological infrastructures. As these institutions incorporate technology into teaching, learning, and student-service activities, those small colleges that have not made appropriate investments will be less attractive to many students. Other institutions will be seen as more desirable not only by potential students but also by the pool of talented and qualified prospective faculty and staff needed to accomplish the small college's mission.

As technology-based education becomes increasingly diffused throughout higher education, will small liberal arts colleges start to be regarded as relics rather than as one of several contemporary formats of higher education?

Insufficient Resources

In the view of most of the symposium participants, resources continue to be the major issue facing small institutions. Many small colleges are tuition-dependent, with limited tuition elasticity and limited access to endowment funding or other forms of discretionary funding. These colleges have greater difficulty meeting the rising expectations of students and

parents and staying competitive. Most small colleges face funding pressures that necessitate both difficult and potentially painful choices. Responding to the issues discussed above will demand very significant resources. Insufficient resources may keep all but a few small colleges from being able to adapt to the challenges, even when they want to, unless they can discover new strategies to maximize resources, enhance efficiencies, and improve productivity.

Increasing Cost-Effectiveness

Small colleges need to find ways to be more cost-effective. As one participant remarked, "Institutions of higher education are not known for their efficiency but rather for their inefficiency—and small residential colleges probably lead the pack, partly due to their inability to use economies of scale." Since they cannot benefit from the scale of the larger institutions, small colleges need to explore ways to cut costs and maximize resources by sharing central services and utilizing technology to increase the efficiencies of many previously labor-intensive operations.

How can information technology help small institutions become more cost-effective? Does IT offer the opportunity to achieve economies of scale heretofore not possible?

Keeping Up with IT

In thinking about resource constraints, most of the participants from small institutions viewed IT as a problem rather than a solution. As one said: "While controlling costs in higher education has always been a challenge, the cost of keeping up with information technology has added a whole new dimension to cost-management concerns. As technology takes a stronger grip on society and business, the demands placed on the academy skyrocket, putting huge pressure on small colleges that may have limited human and financial resources with which to respond."

As small colleges seek to address changing demands and expectations, they confront the challenge of funding the significant infrastructure associated with the reinvention of their institutions. Regardless of the size of the institution or the total number of students served, a base level of infrastructure must be installed and maintained to meet students' needs and expectations. As more student services and instructional delivery become technology-dependent, the demand for a robust technological infrastructure will continue to grow. Although hardware and software costs are significant by themselves, treating them as the heart of the matter ignores the hidden costs of training and support. Especially problematic is offering salaries that are high enough to attract and retain IT personnel.

Will small colleges be able to continue to pay for the IT expertise and infrastructure required to remain competitive?

Developing New Revenue Streams

To deal with these ongoing financial pressures, many small colleges are looking to develop new revenue streams. Technology can be used to leverage investments in core assets such as accreditation, intellectual capital (faculty), and physical plant by extending those assets to new student markets. One approach is to capitalize on the strengths of the liberal arts environment by designing special degrees. For example, a large number of lifelong learners are interested in topics such as current events and personal growth. Other options include consumer-oriented career-development courses, alumni-oriented programs, or online educational offerings customized to serve partner organizations or companies.

For small colleges interested in increasing revenue via technology, what kind of online programs would be marketable and profitable? What business models have the most promise?

Assessing the Value Proposition

In the face of the pressures confronting small liberal arts colleges, differences emerge about how to respond—differences related to how one views the "value proposition" of these institutions. Some symposium participants argued for a focus on the traditional liberal arts mission. They believe that the task is to communicate the already existing value of the small liberal arts college. Other participants advocated expanding or redefining that mission. They believe that the value proposition of the small college is eroding in the face of the issues described above and that new approaches need to be explored. Both sides agreed on one thing: mission is related to attracting and retaining students; mission is not an end in itself.

Focus on the Traditional Mission

Participants observed that dealing with numerous challenges often leads to "mission creep." Since the growth in four-year residential undergraduate enrollment is expected to be relatively flat, the pressure to branch out is increasing. Some say that small institutions should resist this pressure and should remain true to their historical missions. Concentrating on doing what they do well has usually worked, according to this view, as long as these colleges have been flexible enough to meet the changing needs of students. Trying to be all things to all constituencies has led to disaster for many institutions.

Many symposium participants commented that within the landscape of higher education, small, liberal arts colleges provide the most intensive educational experience and do so in relatively cost-effective ways. The conditions thought to be most effective in promoting learning—small class sizes, face-to-face relationships with senior faculty members, an available campus community, a rich array of leadership and service roles, opportunities to do independent work, access to laboratory equipment, and so on—routinely characterize undergraduate education in small residential colleges. Research has shown that students with a liberal arts education have better problem-solving and critical-thinking skills than those with a non-liberal background. There is also considerable evidence that out-of-class experiences are very important to students' learning and personal growth. Small liberal arts institutions typically provide greater opportunities, and even greater demands, to participate in out-of-class activities.

Small, residential liberal arts colleges have also historically focused their attention on outcomes that lie outside the cognitive and psychomotor arenas. In addition to teaching basic transferable skills and professional/vocational skills, the baccalaureate institution has been tasked with preparing critical thinkers, engaged citizens, and moral leaders. In this view of the mission of the liberal arts college, what society and the world ultimately need is not simply the result of effective cognitive learning. What is needed goes well beyond that: the world needs people who have developed their cognitive abilities to the maximum and who have simultaneously learned to contribute to the multiple communities in which they participate and the global community on which we all depend.

Every institution of higher education must stake out its identity, differentiating itself from other educational institutions with different agendas. Small colleges need to focus on their historic missions in order to distinguish themselves clearly from larger institutions in the marketplace of higher education. Small private institutions, in particular, must identify what makes them special and what makes them different from larger and less expensive state and proprietary institutions. This means saying what their mission is not as well as what it is.

Many symposium participants commented that within the landscape of higher education, small, liberal arts colleges provide the most intensive educational experience and do so in relatively cost-effective ways.

Advocates of keeping a focus on the traditional liberal arts mission note that a key challenge is to be more aggressive and effective in helping students and their families understand the benefits of this special kind of education. Small colleges need to familiarize the public with their distinctive features. They must work harder to make the case for the superior educa-

tional effectiveness and the higher-quality result of this format of education for colleges at all levels of admission selectivity. Large public universities now so dominate U.S. higher education that many people—including influential journalists and state legislators—no longer understand the ways in which small liberal arts institutions can be more effective educationally. A persuasive argument for the liberal arts as a strong preparation for a lifetime of learning and job success must be made to both internal and external audiences.

Redefine the Traditional Mission

Other symposium participants noted that the educational tradition of small colleges, a tradition articulated well by those who advocate remaining true to the historic mission, is a strength but that it can also be an impediment to change. Because of their smallness, these institutions tend to be tight-knit institutions where, in the words of one participant, "the status quo is revered and heritage is deified." Because of their inward focus, many small residential colleges may be less attuned to understanding the dynamic forces of change that swirl all about them and less open to embracing the change that could help their institutions survive and flourish. Traditional academic structures and culture, for example, may not align with new institutional goals to start programs outside the traditional liberal arts core as a means to increase revenue or may not align with increasing pressures to move from a faculty-centered teaching model to a student-centered learning model. What some have called a "silo mentality" can deprive the institutions of the very advantages that would enable them to survive and flourish.

One example of a silo mentality is the assumption that small schools are better than large ones. A corollary is that smaller institutions are in a better position to use IT effectively precisely because of their size. When larger institutions add computers to classrooms and labs, the argument goes, they are tempted to offset the cost of IT by shifting to larger lecture sections and substituting less-expensive graduate assistants for faculty. Small colleges cannot create large sections of courses because they do not have that many students and because they are philosophically opposed to such models. They cannot hire graduate students as instructors because they do not offer Ph.D. programs. Consequently, they will seek other, more creative ways of using IT.

Just because an institution is small, however, does not mean that it employs effective pedagogies. Many faculty who teach small classes at small institutions most often use the lecture method. On scores of small campuses, the vast majority of faculty have never participated in conferences at the national level. Maintaining a myopic view of what actually goes on in large and small institutions is even more dangerous as competitors transform their teaching and learning environments from passive reception to active and engaged learning.

Maintaining a myopic view of what actually goes on in large and small institutions is even more dangerous as competitors transform their teaching and learning environments from passive reception to active and engaged learning.

Too many faculty and administrators at small colleges believe that large universities do not care about teaching and learning. Too many believe that the "personal touch" will be good enough to distinguish small colleges from large universities and for-profit startups. Too many believe that the for-profit sector will not be able to provide an effective and substantial alternative to traditional institutions of higher education. None of these stereotypes are true. Faculty in large universities care deeply about student learning, as do those in the for-profit sector. The reality is that there are good and bad academic practices at all institutions, regardless of size. More important, as the focus in higher education shifts from teaching to learning, the most current expertise in human cognition and learning resides not in small colleges but in large research universities.

For decades, faculty at both large universities and small colleges have systematically ignored the voluminous body of knowledge that researchers in these domains have developed. They have failed to act on practical advice offered by these researchers for how to improve student learning through more effective pedagogical strategies. But this situation is changing rapidly. It is now possible to embed these research-based and demonstrably effective pedagogical strategies in silicon. A body of truly remarkable resources for learning is growing on the Web. For the most part, these resources are being developed by large universities or corporations that have access to the financial resources and expertise necessary

to translate what is known about human cognition and learning into well-designed, online learning environments.

At the same time, prestigious research universities and public university systems are investing large amounts of money in faculty development and in the design and implementation of new methods for meeting the needs of a rapidly growing student population. One symposium participant cited the example of a thirty-faculty department that decided to hire a full-time faculty-development person and a half-time assessment expert to help the faculty members implement a program of continuous improvement of student learning. Although large universities and for-profit institutions may appear to be rooted in the "factory model" of grinding out diplomas, the reality is that most of the truly exciting and effective technology-enhanced teaching and learning is taking place at large universities and, increasingly, at for-profit corporations.

In addition, remaining true to the traditional small-college mission will not resolve the resource issue or respond to students' changing expectations. Those who believe that students' interest in career preparation through specialized programs of study will continue for the foreseeable future say that small colleges must find innovative ways to broaden their curricula. Remaining true to a narrow definition of "mission" will not mitigate the dynamics of rising costs, nor will it create the additional resources so badly needed by these institutions.

Small colleges ought to be able to flourish in a rapidly changing environment, since their size allows them to be nimble, flexible, and able to adapt quickly to change. A primary obstacle that can get in the way is remaining committed to the status quo. Small-college leaders need to carve out innovative strategies that can build on the emerging resources developed by others. Information technology represents a powerful tool that enables them to do so.

The Role of Information Technology: Six Case Studies

Most administrators of small institutions believe that the increasing use of information technology on campus and in society is a major contributor to the stresses that they are facing, especially in the resource arena. When campus leaders are asked how IT can be used effectively on their campuses, their responses tend to reinforce the status quo, citing such things as improvements to current administrative and student-support services. Making such improvements can lead, of course, to increased costs if IT is treated as merely an add-on. If wisely applied, however, technology can help small colleges maximize resources and improve productivity through the redesign of many labor-intensive operations.

Not surprisingly, many of the ideas suggested by symposium participants reinforce traditional values of community by making sharing and collaboration much more feasible. Ideas included using IT in the following ways: to improve student retention by bonding students with each other and with the instructor; to multiply students' sense of community by increasing forms of contact; to construct learning communities that continue class discussions electronically outside of the classroom; to enhance students' sense of a "high-touch" environment; and to maintain relations with students, family, and alumni.

Since communication is a necessary ingredient in building community, many institutions value the ability of IT to increase communication within their communities. All college constituencies can be kept up-to-date on pertinent matters in a way that was never before possible; all members of the community can be informed, empowered, and brought on board. The 24/7 communication capabilities enabled by IT make information and knowledge more available for instructors and students and create the opportunity for instructors to greatly enhance their mentoring role. In addition, IT can be used to facilitate communication with external audiences. The college Web site can be used to communicate the identity and the agenda of the institution both internally and externally and to allow faculty to communicate with prospective students, thereby assisting the admissions effort.

IT applications that build community and improve communication are valuable, but as in the case of improved student-service and administrative services, they can add cost in terms of both time and resources.

IT applications that build community and improve communication are valuable, but as in the case of improved student-service and administrative services, they can add cost in terms of both time and resources. The question thus remains: How can IT address the resource issue in a positive way rather than exacerbate it? To answer this question, participants at the symposium considered a series of case studies, each of which illustrates an innovative approach to using IT to tackle the strategic issues discussed above. The studies present a series of strategies from which small institutions can pick and choose according to their particular circumstances. Each of the cases represents a redefinition of the concept of community as it has traditionally been viewed on small-college campuses, moving from a nearly closed sense of community to one that both extends the college community out into the larger community and brings aspects of the latter in to the campus.

- The first case explores the concept of the "blended community." In this instance, blending involves offering both face-to-face and online courses on a single campus. The notion of blending moves away from the kind of either/or approach that can inhibit creative change in small institutions. ("Students come here to study face-to-face with professors and one another. If we offer online courses, we give up the essence of who we are.") Once the notion of a blended environment is accepted, the possibilities of what to blend and how to blend become numerous.
- The second case—on redesign—is a variation on the blending theme. Rather than creating wholly online courses, institutions may want to create hybrid courses

that combine online and face-to-face elements. This case also represents a course-redesign approach that both improves the quality of student learning and frees faculty to take on other tasks.

- Rather than creating their own online courses, institutions may want to consider another approach to blending: taking advantage of the capacities of information technology to bring additional resources to the campus. The third case offers the example of an institution that "imported" courses from an external provider and, in the process, strengthened its internal offerings.
- The fourth case—on collaboration—suggests yet another way of blending and importing courses and programs. Often the preferred choice of small colleges, collaboration has its own set of advantages and disadvantages when compared with other blending strategies.
- The fifth case discusses outsourcing, with a focus on IT services. A variation on importing, outsourcing offers small institutions potential advantages in both quality of service and cost-effectiveness.
- The sixth case explores the "extended community," in which the small institution offers courses and programs to students who are not resident on campus. Typically these students are working adults. Several small colleges have achieved national distinction by offering off-campus programs and, in so doing, have made a significant difference in their institutional prosperity.

The successful implementation of any of the ideas illustrated in the case studies requires both an attitudinal change on the part of the entire institution and a cost/benefit analysis to determine if, when, and how a particular institution might apply the idea. Each entails a redefinition of "community," moving from a relatively narrow, placebound, face-to-face definition to one that embraces a wider view of what makes a community. Rather than being a threat to coherence and integration, these cases offer new ways of approaching old problems, thus creating new opportunities for small institutions.

case 1

A Case Study in Blending: Fairleigh Dickinson University

The Issue

Many see the ongoing debate regarding online learning as an either/or conversation. In this view, distance learning is a way for students who do not have access to campus to access collegiate instruction. Residential students, however, prefer the face-to-face interaction of a traditional classroom. Other institutions view the issue of face-to-face versus online learning as part of a continuum of learning opportunities, each with its own benefits for students. In this view, the question is when to use what kind of pedagogical technique to achieve particular learning goals.

Because small, residential liberal arts colleges view close interaction between students and faculty as a quality differentiator, some see the use of online learning as a threat to the coherence and integration of not just the curriculum but campus life in general. Online learning is viewed as "impersonal" and at odds with institutional identity. Campus administrators are fearful that what they offer prospective students and their parents—a close campus community, which is often the very reason for choosing a small institution—would be unalterably compromised by offering online courses.

Because small, residential liberal arts colleges view close interaction between students and faculty as a quality differentiator, some see the use of online learning as a threat to the coherence and integration of not just the curriculum but campus life in general.

Fairleigh Dickinson's Solution

Founded in 1942, Fairleigh Dickinson University (FDU) has two regional campuses in New Jersey and two international campuses. FDU's Florham-Madison Campus is a more "traditional" liberal arts environment, with a largely full-time residential student population of about 2,200 undergraduates and 1,500 graduate students. Its Teaneck-Hackensack Campus serves a student body of considerable diversity in terms of ethnicity, age, and geographic backgrounds and has about 4,100 undergraduates and 2,300 graduate students, approximately three-fourths of whom commute to campus. Students on both campuses pursue degrees from the associate's through the doctoral level and certifications from over one hundred programs offered in a broad range of fields.

Fairleigh Dickinson's mission includes a commitment to providing students with the multidisciplinary, intercultural, and ethical knowledge that they need to participate in the global marketplace of ideas, commerce, and culture. To contribute to this mission, FDU is implementing a strategy of blending online learning experiences with on-campus courses. FDU believes that part of living in the world of today and tomorrow includes the ability to work, learn, and collaborate in an online environment. Thus the university has made the decision that all students at both campuses (residential and primarily commuter) will take four online courses over the duration of their education, or one each year.

All freshmen will take a course entitled "The Global Challenge," an interdisciplinary course that uses the resources of the Internet as a learning, research, collaboration, and communications tool. This course focuses on global issues such as the environment, conflict, and population and health. The issues are examined from a variety of perspectives, including those of the scientific method and ethical/moral reasoning. The expectation is that students will learn about working together at a distance as they collaborate with experts around the world and expand their understanding of global issues. To see a sample of course materials,

please visit <http://webcampus.fdu.edu/>. Log in by entering "guest" for both the user name and the password, click on the Courses tab, and click on "The Global Challenge" under Course Catalog. One of the major features in support of this course is the developing Global Virtual Faculty Program <http://www.globaleducation.edu/>, wherein adjunct scholars and practitioners from around the world partner with on-site faculty in teaching the online courses. Additional courses are under development and will provide students with choices in subsequent years.

Whereas many campuses see implementing distance education or online learning as a way to develop new markets or to provide access to their campuses, Fairleigh Dickinson views this blended model a valuable way to enrich the curriculum of the residential campus. In the words of President J. Michael Adams: "I refuse to get involved in a debate over whether distance learning is better or worse than classroom teaching. It is simply different. And it is one channel that our students must be skilled in."

Questions to Consider

- A few institutions are beginning to tap the rich opportunities of blending online and campus-based course designs. However, many are not. What are the obstacles to implementing such a strategy?
- Does the use of online learning represent a "threat to coherence and integration" on the small residential campus? Why or why not?
- If preparing students to work and live in a global world is a goal of most institutions, why have so few considered making an online course a required part of the curriculum?

Discussion

Fairleigh Dickinson's decision to require all students to take one online course each year over the duration of their education arose from a desire to enhance student recruitment by differentiating the university from other institutions. FDU has invested in strengthening infrastructure, establishing better student support, integrating its learning management system to work with its student records system, and supporting faculty in developing and offering online courses because FDU believes this strategy will have a future payoff. As one symposium participant noted,

> In the words of FDU President J. Michael Adams: "I refuse to get involved in a debate over whether distance learning is better or worse than classroom teaching. It is simply different. And it is one channel that our students must be skilled in."

FDU's approach moves beyond faculty development simply for the sake of faculty development; rather, FDU is addressing faculty development in the context of a specific programmatic purpose.

Blending offers other advantages and can be done both within a course and within the totality of the degree experience. For example, the University of Central Florida and the University of North Carolina (UNC)-Wilmington are facing the need to enroll additional students. Both are using a bricks-and-clicks strategy of putting core courses online and/or providing reduced-contact-hour alternatives to meet the convenience demands of residential and distance students while reducing pressure on the physical plant. UNC-Wilmington calls itself the "Blended Campus."

Symposium participants observed that there is tremendous opportunity to create what one called a "partial" residential experience at small institutions. There is widespread agreement that a blended distance-education approach—one with both on-campus and distance components—can be highly effective. Residential liberal colleges are well suited to develop effective strategies for blending diverse learning experiences in such a way as to capitalize on the onsite or residential component.

case 2

A Case Study in Redesign: Fairfield University

The Issue

The cost of instruction is escalating at small residential colleges just as it is at other higher education institutions. One solution is to move to more scalable approaches, such as larger classes. This idea faces several obstacles at small institutions, however. First, a move to larger classes is frequently perceived as diminishing the quality of instruction because faculty would be unable to provide attention to each student's needs. This problem seems particularly difficult because small colleges pride themselves on close faculty-student relationships and communication. Second, many small institutions simply do not have sufficient students and faculty on campus to develop scalable solutions. Can small institutions effectively use information technology to reduce costs without diminishing quality?

Many small institutions simply do not have sufficient students and faculty on campus to develop scalable solutions. Can small institutions effectively use information technology to reduce costs without diminishing quality?

The Pew Grant Program in Course Redesign has produced thirty examples of the benefits of using information technology to reduce costs and improve quality in large-enrollment, introductory courses. Yet few of these models are at small private institutions. There are several misconceptions about these projects that prevent small institutions from taking advantage of their methodologies. The first is that small colleges do not have "large-enrollment" courses. All institutions, in fact, have large-enrollment courses that are generally divided into smaller sections and include some significant portion of the students at the institution. The second misconception is that these redesigns are carried out either wholly online or at a distance. In reality, few of these projects are done entirely online; rather, they employ a mix of online and face-to-face instruction. The third misconception is that technology is being used mainly to improve communication within large, impersonal courses. Since small liberal arts colleges already include a high degree of interaction and communication within their campus communities, they may perceive little need to incorporate information technology. But even though improving communication is one benefit of the Pew projects, the primary focus is on improving student learning.

Fairfield's Solution

Founded in 1942 in Fairfield, Connecticut, Fairfield University is a comprehensive Jesuit university with 3,100 full-time undergraduates. Fairfield is redesigning its general biology course to improve the quality of learning and to reduce its cost. This two-semester course is one of the largest at Fairfield, with an annual enrollment of 260 students, about 15 percent of the first-year class. A large-enrollment course at a small institution like Fairfield may enroll only 260 students, but because of the salaries of the instructors and the amount of time they devote to the course, the course costs can be relatively high. Teaching 260 students annually at a per-student cost of $506 results in a total course cost of $131,560. That represents a substantial resource allocation, with a lot of room for creative redesign.

The traditional biology course was taught in a multiple-section model, with 35–40 students per section, and met three times per week with a three-hour lab. Four faculty members provided lectures; additional faculty and professionals were needed to staff the labs. All faculty used the same syllabus, and labs consisted of modules including traditional experiments requiring little scientific inquiry. Previously, the size of the class had been reduced to about 35 students (from about 140 per class), but faculty and student surveys indicated that student-professor interactions were no better in the smaller classes than in large classes, that there was nearly unanimous dissatisfaction with lectures using chalk and an overhead projector and

labs with a series of canned modules focused on memorization, and that few students retained the biology concepts needed in future courses.

Fairfield's redesign is part of a concerted effort to create a campus ethos that focuses on student-directed learning. Using information technology, the emerging model of active and engaged learning includes dialogue, immersion, inclusion, teamwork, and experiential learning. The goal is to change the focus of activity from memorization to a student-centered, inquiry-based pedagogy. The planned redesign will condense all sections into a single large-classroom format. Students will work in teams of two or three around individual laptop computers, utilizing software modules that focus on inquiry-based instruction and independent investigations. The syllabus will be redesigned around the BioQUEST software library and other online resources and interactive learning experiences. Students will better understand foundational concepts in biology, develop increased confidence in their knowledge, understand the effectiveness of collaborative team efforts, and develop higher-order cognitive skills.

Consolidation of the seven lecture sections into two in the redesigned course and the introduction of computer-based modules in the lecture and laboratory will result in a planned cost-per-student reduction from $506 to $350, a savings of 31 percent.

Faculty will no longer spend many hours preparing lectures for one-time use; they will work individually with students and with the student teams to provide just-in-time assistance and to guide students' inquiries. The online learning resources will be available 24/7 for use by students and can be refined or updated quickly, without the need to rework them every term. The laptops will be available for other courses also.

Significant cost savings will be realized from reducing faculty time in three major areas: (1) materials development for lectures; (2) out-of-class course meetings; and (3) in-class lectures and labs. The number of faculty needed to teach the course will decline from seven to four. Faculty time will be reconfigured to support a division of teaching responsibilities so that the four faculty members can teach from their areas of expertise. Faculty time devoted to this course will decrease from 1,550 hours to 1,063 hours. Consolidation of the seven lecture sections into two in the redesigned course and the introduction of computer-based modules in the lecture and laboratory will result in a planned cost-per-student reduction from $506 to $350, a savings of 31 percent.

Questions to Consider

- Since the number of students in one course at a large university or a community college can easily exceed the total enrollment of a small institution, can small institutions benefit from the Pew Program's redesign concepts and cost-reduction ideas? Under what circumstances?
- Savings can be realized by making changes in the kinds of personnel involved in the course, by reducing the number of hours instructors devote to the course, or by doing both simultaneously. Why have small institutions not explored these possibilities more fully?
- A key characteristic of the methodologies employed by the Pew projects to realize real savings is scalability: they are designed to support large numbers of students with fewer instructional resources. How can small institutions create scalable solutions?

Discussion

The Pew Program's focus on large-enrollment courses as the target for redesign derives from the fact that a mere twenty-five courses account for approximately 50 percent of any community college's enrollment and 35 percent of any four-year institution's enrollment, regardless of institutional size. Thus, "large" (as in large-enrollment courses) is relative to the institution. In each case, the target for redesign is the top twenty to thirty (in terms of enrollment) undergraduate courses at any given institution. For some institutions, that enrollment would be 300; for others, it would be 3,000.

In addition, the Pew Program redesigns courses, not classes. Like most other small institutions (and many large ones), Fairfield teaches its biology course by dividing it into sections (or classes)—in this case, seven sections—with each taught by an individual faculty member. By contrast, Virginia Tech's linear algebra course has an annual enrollment of 1,520. Like Fairfield, Virginia Tech divides the course into sections (or classes): 38 sections, each taught by an individual instructor. In both cases, the goal is to redesign the entire course, not a particular class. All institutions have large courses, regardless of institutional size and regardless of individual class size. Those large courses are the targets of redesign because of their relatively large impact on the institutions.

Can the concepts and practices employed by the Pew Grant Program in Course Redesign be applied to small, residential liberal arts colleges? Small institutions can indeed benefit as much as large ones in enhancing the quality of student learning. When it comes to cost reduction, however, size does indeed matter.

The cost of a course and the potential amount of savings generated depend on a number of factors in addition to the number of students in the course. For example, the cost-per-student of the thirty courses involved in the Pew Program ranges from a high of $575 to a low of $48. Those costs are determined by the kinds of instructional personnel employed (e.g., high-salaried full professors versus modestly paid junior faculty, adjuncts versus full-time faculty, and so on), as well as by the amount of time each person spends on the course (e.g., relatively low-paid instructors may spend many hours whereas high-paid faculty may spend comparatively few). Thus, a large-enrollment course at a small institution may enroll only 300 students, but because of the salaries of the instructors and the amount of time they devote to the course, the course costs may be relatively high.

Savings can be realized by making changes in the kinds of personnel involved in the course, by reducing the number of hours instructors devote to the course, or by doing both simultaneously. The dollar savings is a result of how all of these factors are managed or manipulated in the process of redesign. More "radical" redesigns can result in greater savings.

If an institution is smaller and the faculty are less well paid than in the Fairfield case, however, the dollar savings from a redesign may be negligible. For example, a course enrolling 75 students in three sections of 25 each taught by faculty members with an average salary and benefits of $45,000 would produce a cost-per-student of $225, or a total course cost of $16,875. Even if a redesign produces a 40 percent reduction in cost (the average for the Pew-funded projects), the savings would be only $6,750.

Although the dollar savings may not be great, redesign offers other resource benefits, even for very small institutions. The amount of faculty resources consumed by introductory courses at smaller institutions can often be proportionately greater than those at large schools. As an example, the University of Southern Maine has nine faculty members in its Psychology Department. Teaching the introductory course consumes the equivalent of two full-time faculty, thus placing serious constraints on the ability of the department to pursue its interests in such things as offering distance-learning courses. After redesign, the faculty at Southern Maine will have the opportunity to pursue those interests while generating additional revenue for the university because fewer resources will need to be devoted to the introductory course.

Smaller institutions frequently face similar resource constraints and can benefit from redesign efforts that free faculty to do other things. If an institution's challenges include insufficient resources to do what it wants or needs to do, such as adding breadth to offerings, it can benefit by enabling faculty members to teach additional courses in place of the introductory course. At Fairfield, seven faculty were engaged in teaching the traditional introductory biology course; four now teach the redesigned course, freeing three faculty to offer additional, advanced-level courses to enrich the curriculum.

case 3

A Case Study in Importing: North Central College

The Issue

Many small colleges would like to offer a wider range of courses and degree programs for their students. Many find, however, that they do not have sufficient breadth in departments to offer a full assortment of modern majors as well as the full array of liberal arts. In addition, qualified faculty may not be available in sufficient numbers, and the number of students who would like to take these courses or major in these areas on a consistent basis has historically been small.

As networked learning resources become increasingly available, with learning occurring anytime and anywhere, an institution's role of providing instruction for its "own" students can become radically different. Currently, institutions of higher education are offering more than 20,000 courses online, and that number is expected to increase exponentially. This phenomenon offers all institutions the possibility of "importing" already designed and staffed courses—and even programs—as a way of providing a greater range of offerings.

North Central's Solution

Founded in 1861 and located in Naperville, Illinois, North Central College (NCC) is an independent, comprehensive college of the liberal arts and sciences. Affiliated with the United Methodist Church, NCC offers bachelor's and master's degrees and enrolls slightly over 2,500 full-time and part-time students, of which approximately 400 are graduate students.

To broaden the range of elective options available at the graduate level, NCC is partnering with Cardean University to offer courses online. Cardean University is a wholly owned subsidiary of UNext. Headquartered in Chicago, UNext is an education company dedicated to developing and delivering high-quality, integrated e-learning solutions by collaborating in online course development with leading universities such as Stanford, Carnegie Mellon, and the University of Chicago. Cardean University offers courses in leadership and management, e-commerce, marketing, finance, accounting, and business communications.

The academic areas of the partnership are Business Communications (two one-credit courses), Internet Marketing (three one-credit courses), and Internet User Experience (three one-credit courses). Courses are currently staffed by Cardean with faculty who have appropriate academic credentials (all have at least a master's degree and many have Ph.D.'s), experience in the business world, and training from Cardean for online delivery. By Cardean's estimate, each course requires approximately twenty-five to thirty hours to complete over a six-week period. Each one-credit course costs $500, which students pay directly to Cardean. Students cross-register with Cardean and then transfer the credits to NCC as part of their elective graduate credits.

NCC entered into this partnership after its faculty had carefully reviewed the courses and established their fit with the programs offered on campus. Students learn about the availability of these courses through the NCC faculty and admissions counselors. NCC has enlarged the selection of courses available to its students and rounded out the curriculum at the graduate level. Cardean, meanwhile, is able to spread the costs of development and delivery over multiple institutions.

Questions to Consider

- Is importing courses a viable way to expand the offerings of an institution? Why or why not? What are the potential obstacles to such a relationship for the receiving institution? For the sending institution?
- Are there reasons to select a partner from the private sector, the independent-college sector, or the large-university sector? What are the advantages and disadvantages of each approach?
- In the NCC case, students pay tuition directly to the sending organization. What other financial arrangements might be considered?

- What other "win-win" benefits, not yet part of the partnership described in the case, are possible?
- Most institutions seem to prefer "collaboration" over "outsourcing" or "importing," despite the fact that most collaboration attempts fail. Does importing offer a more viable strategy than collaboration? Why or why not?

Rather than creating its own online courses, North Central College (NCC) has chosen what appears to be a more radical, yet potentially more cost-effective, strategy. By importing courses from Cardean, NCC can offer its students courses that it could not otherwise provide.

Discussion

NCC wants to differentiate itself from the other institutions in its region by bringing greater value to its students. Rather than creating its own online courses, NCC has chosen what appears to be a more radical, yet potentially more cost-effective, strategy. By importing courses from Cardean, NCC can offer its students courses that it could not otherwise provide. In addition, it does not have to invest in the technology required to offer the courses.

NCC plans to have its faculty teach the Cardean courses in the future, thus blending sophisticated technology-based course materials with the caring environment of the home institution. Other plans are to create linkages to local corporations in order to offer a high-tech learning experience coupled with a high-touch environment.

Symposium participants noted that students themselves are contributing to the creation of blended campuses. On many residential campuses, students are taking courses online from other institutions and transferring in credits on an ad hoc basis. All institutions would be better served both academically and financially if they created the capacity for planned importing of courses. Students who do this individually pay tuition to the external institutions and potentially shorten their time spent on the home campus. A variety of more-productive arrangements are possible. By contracting with an external institution on a fee-for-service basis and folding these courses into the home campus curriculum, institutions can continue to collect tuition. In addition, they can "brand" the imported courses such that the entire process is transparent to students.

case 4

A Case Study in Collaboration: The Associated Colleges of the South

The Issue

Many small colleges would like to offer a wider range of courses and degree programs for their students. Many find, however, that they do not have sufficient breadth in departments to offer a full assortment of modern majors as well as the full array of liberal arts. In addition, qualified faculty are not available in sufficient numbers, and the number of students who would like to take these courses or major in these areas on a consistent basis has historically been small.

Although the benefits of interinstitutional collaboration have been noted often, the number of small institutions engaged in continuing, large-scale academic collaborations is few. The difficulties lie in several areas. Identifying specific courses or programs for collaboration is difficult for some institutions. Interested institutions must find each other and come to some understanding about the content, the policies, and the delivery mode that will be acceptable to all partners. Faculty must work together on a continuing basis to establish course content, delivery methods, and learning outcomes. Student-support personnel must work collaboratively to ensure that students from all institutions are able to register, pay, and participate and to access needed learning resources such as library materials. Institutions must provide an ongoing commitment so that students can plan to take courses and can fit the courses into their programs along with other academic requirements. Essentially, at all levels of all partner institutions, everyone must agree that the learning experiences offered by the other participating institutions are acceptable.

ACS's Solution

The fifteen institutions that make up the Associated Colleges of the South (ACS) have collaboratively developed a Virtual Classics Department to provide students at participating institutions the opportunity to take courses that most of the colleges would not be able to offer on their own. (See the list of participating institutions on page 21.) The number of small colleges offering a full range of classics courses is small. It is difficult to hire scholars in these areas, and students historically have not enrolled in these majors in large numbers. Thus, employing a full range of classics faculty is not cost-effective for a single small college. By creating the Virtual Classics Department, the ACS institutions are ensuring that students will have access to excellent instruction and scholarly resources at a distance without compromising the supportive environment available to them at each college in the consortium.

To address problems frequently seen in attempts at collaboration, ACS serves as the organizing partner. Founded in 1991 and headquartered in Atlanta, Georgia, ACS sponsors and coordinates a number of joint efforts among the fifteen institutions. This particular collaboration, named Sunoikisis <http://www.sunoikisis.org/>, is funded by the Andrew W. Mellon Foundation, with the goal of building a digital infrastructure to support collaborative efforts among the member institutions of ACS.

The structure of this virtual department is straightforward. After faculty are trained (both face-to-face and online) by ACS, one instructor (or a team of faculty from participating institutions) teaches a course that is offered at all the participating institutions that want to list it. All materials, assignments, and other resources are posted online. Lectures are delivered by RealAudio, and students work together online once a week in a synchronous chat room. All students have the same readings and study questions to prepare in advance of the online meetings. Students also meet on campus during the week with a faculty member at their home institution for additional discussion or to have their questions answered.

Students pay tuition to their home institutions. ACS supports the Web board and provides faculty-development and technical help as needed. At present, these costs are paid for by the grant. Annual workshops for participating classics faculty members are supported by the institutions.

Thus far, the Virtual Classics Department has offered an archaeology course as preparation for a dig in Turkey three times with 12–15 students enrolled each time. It has offered upper-level Latin and Greek courses with up to

30 students enrolled in a section. Enrollments average about 50 students per year. There is interest among ACS members in replicating this model for other academic areas, in particular Latin American Studies and Less Commonly Taught Modern Languages.

The benefits to the institutions are several. Colleges can offer courses without the need to have full-time faculty in academic areas that are hard to staff and for which the enrollment would be low on any one campus. Faculty are able to teach in areas of their academic expertise and to work with others whose academic interests parallel or complement their own.

> By creating the Virtual Classics Department, the ACS institutions are ensuring that students will have access to excellent instruction and scholarly resources at a distance without compromising the supportive environment available to them at each college in the consortium.

Participating Institutions

Birmingham-Southern College (Birmingham, Alabama)
Centenary College (Shreveport, Louisiana)
Centre College (Danville, Kentucky)
Davidson College (Davidson, North Carolina)
Furman University (Greenville, South Carolina)
Hendrix College (Conway, Arkansas)
Millsaps College (Jackson, Mississippi)
Morehouse College (Atlanta, Georgia)
Rhodes College (Memphis, Tennessee)
Rollins College (Winter Park, Florida)
Southwestern University (Georgetown, Texas)
Trinity University (San Antonio, Texas)
University of Richmond (Richmond, Virginia)
University of the South (Sewanee, Tennessee)
Washington and Lee University (Lexington, Virginia)

Questions to Consider

- If collaboration can provide solutions for small colleges, as seen in this case, why is there not greater use of this strategy? What are the issues that may prohibit greater application?
- In this case, the initial collaborative efforts have been supported by a grant from an outside funding agency. Are grants necessary to establish such a collaboration? Why or why not? How can such a collaboration be sustained beyond the grant period?
- Are there some academic areas beyond classics that lend themselves more readily to such collaborations? What are their characteristics?
- If collaboration can provide a viable approach for other academic areas, how can institutions begin to form such collaborations? What kinds of issues should potential participants consider before agreeing to such a collaborative endeavor?

Discussion

Information technology enables collaboration among institutions and among institutions and other organizations. Collaboration is one area where private small-to-medium-sized institutions differ from other higher education institutions in that more complex and robust collaboration may soon be an imperative for these institutions. Most of these institutions see great possibilities for addressing cost management in the development of consortial arrangements among small, like-minded colleges. Consortia offer small institutions the opportunity to partner with others to reap the economies of scale that are absent when small colleges individually try to address new issues and opportunities.

Information technology can be used to pool both faculty expertise and students across campuses to capitalize on the strengths of each campus. Creating strategic collaborations to offer courses and degrees, especially where enrollment is low, may broaden campus offerings while controlling personnel costs. Building student community across campuses and enabling students to form work teams in class as well as outside of class offer a huge payoff. In many ways, this is a move toward a distributed university. Benefits include providing greater variety to students and

sharing resources in a cost-effective manner. By developing an interinstitutional bricks-and-clicks strategy, an institution can present its own students with more course and program choices while accessing a greater pool of students to enroll in the courses it offers.

In addition to academic applications, a variety of interinstitutional strategies can be used to develop and fund technology infrastructure, training, and administrative applications. Small institutions can work together to share costs, for example, by aggregating buying power in joint purchasing and joint outsourcing of services, especially for high-end needs, including both equipment and technical staff. Sharing staff directly with other institutions can reduce costs. Support services do not necessarily have to be face-to-face, as customer-support lines have demonstrated in the retail computer world. Distance-education capabilities make it possible to offer training on multiple campuses.

Collaboration is one area where private small-to-medium-sized institutions differ from other higher education institutions in that more complex and robust collaboration may soon be an imperative for these institutions.

Despite the fact that most collaborations begin with what one symposium participant called "high-minded ideals," what sustains them is an eye on the bottom line. What are the key ingredients that allow collaboration to work successfully? Rather than being just "a good idea," the project must be central to the missions of the participating colleges and must meet a strongly felt, specific academic or administrative need. All participating institutions must engage in a serious cost-benefit analysis. Initial investments must be viewed as "venture capital," with an eye toward eventual sustained support based on a well-thought-out business plan. Issues such as determining faculty load, appropriate compensation, and revenue sharing must be worked out clearly in order to sustain collaboration. Finally, participants must recognize that faculty and administrators often have different reasons for wanting to collaborate; both points of view must be taken into account.

There is a great deal of interest in collaboration among small institutions, but there are precious few successful examples. Why are collaborations so difficult to implement? Why do so many collaboration attempts focus on peripheral subjects, with no real gains in cost reduction, which is a primary point of collaboration for these schools? One reason is that collaborations are frequently attempted among competing institutions. Symposium participants agreed that trust is an important part of establishing a successful collaboration and that it is often difficult to sustain trust among competitors. Having the institutions agree to trust a neutral broker, perhaps someone outside the collaborating institutions, can be a huge advantage. Even though everyone talks about collaboration, solutions such as importing or outsourcing may in fact be both easier to implement and far more cost-effective.

case 5

A Case Study in Outsourcing: Immaculata College

The Issue

As greater numbers of students and faculty expect that information technology will be part of the learning environment, more and more small institutions are finding that providing excellent service is both expensive and difficult. A decade ago, fewer than 20 percent of faculty, staff, and students were active consumers of technology services and support. Today, almost 100 percent are, at least to some degree. Faculty and administrators increasingly perceive information technology to be critical to their work, and they want central technology organizations to meet their changing expectations.

It is not just the exponential numbers of requests for support that are contributing to this situation. The need for constant updating of knowledge to master new versions of software and new kinds of services and hardware requires continual staff development. This support crisis is further exacerbated by the fact that campuses must compete with private industry and with one another for highly prized programmers, network managers, and the like. Retention of experienced staff is a critical issue. Highly valued staff are receiving multiple job offers, and institutions are finding it difficult to hire replacements. Moreover, as the salaries of these individuals rise, the costs of implementing IT on campuses tend to increase as well.

Rather than trying unsuccessfully to keep up with this demand by hiring and retraining existing staff, a small but growing number of colleges are taking the lead from the business world and are hiring outside companies to help manage their computing operations and other IT needs. Among the functions that external service organizations can provide are staffing help desks, developing and maintaining Web sites, managing the campus network, selecting and installing telephone systems, and choosing ISPs for off-campus use. Today library services, network services, and instructional services can all be outsourced.

The core competencies of any organization are what create value and differentiate it from its competition. No one would argue that food services and bookstore management are core competencies. These functions are commonly outsourced today, and some institutions are beginning to outsource facilities management as well. For small institutions, information technology management and support are not core competencies. Outsourcing is a way to contain costs and provide up-to-date services. Outsourcing eliminates staff time spent on learning new hardware and software, provides the leverage of national research and development activities enabled by profits or overhead accruing from multiple client institutions, protects the institution from technical obsolescence, and affords the institution a smooth ride through the life-cycles of technology innovation.

Immaculata's Solution

Located west of Philadelphia in Chester County (a high-tech corridor), Immaculata College (IC) is a Catholic liberal arts institution founded in 1920 by the Sisters, Servants of the Immaculate Heart of Mary. The student body is composed of approximately 2,300 full- and part-time, traditional-age, continuing-education, and graduate students. The executive team at IC recognized the importance of coordinating both the administrative and the academic computing functions, and it made the decision to merge the two functions and seek professional management. Because the institution could not pay the high salaries demanded in the surrounding technology corridor for the level of staff needed, the decision to outsource removed the need to find, train, and replace the appropriate personnel.

Immaculata partnered with CollegisEduprise for technology management of its academic and administrative computing services. CollegisEduprise offers comprehensive technology-related planning, implementation, management, and support services for higher education, all designed to improve institutional return on investment in technology. Founded in 1986 and headquartered in Maitland, Florida, CollegisEduprise has more than 110 traditional higher education clients.

In the instructional area, a full-time employee of CollegisEduprise works directly on site with IC faculty to assist them in moving courses to the online or blended environment and to troubleshoot or provide other needed services. That employee also provides faculty training, as desired, in the Instructional Design Center. A second full-time employee manages the technology infrastructure, support services and an onsite staff of CollegisEduprise professionals. A group of student aides, supervised by the two CollegisEduprise employees, provides support to students. CollegisEduprise employees are part of the campus community, serving on committees and attending meetings and other events as appropriate. The administrators of IC meet regularly with the CollegisEduprise managers to ensure that any issues are resolved. The integration of the two functions managed by the technology professionals has significantly benefited the campus.

Although it took time for the campus and the company to learn to work together, both agree that the relationship works well. Through CollegisEduprise, IC offers a help desk for students 24/7, a help desk for faculty and personal consultation during all business hours, and special training or consulting for faculty annually. When there is a personnel change, CollegisEduprise handles all aspects of the search and hiring; IC interviews the final candidates. When talking with other institutions in their local consortium, IC is able to see the contrast in available student and faculty services. Other peer institutions are not able to offer as high a level of service; some have technology problems; and others spend significant time searching for and hiring technology professionals. An important benefit of outsourcing is that the senior administration can focus on IC's mission and core business rather than spending time planning, managing, and implementing technology systems and staff.

Questions to Consider

- In today's highly competitive IT marketplace, can small institutions afford to maintain in-house expertise?
- Given the difficulties in attracting, hiring, and keeping professionals in the area of information technology, why do so few small colleges adopt an outsourcing strategy?
- Is there a quality trade-off between in-house IT support and outsourced IT support? If so, how is it expressed?
- Does outsourcing provide a competitive advantage for small colleges? If so, why have so few implemented this option?
- Since the most difficult aspect of outsourcing is to structure and manage the relationships involved so that all parties benefit, what factors do institutions need to consider when developing an outsourcing arrangement?

An important benefit of outsourcing is that the senior administration can focus on mission and core business rather than spending time planning, managing, and implementing technology systems and staff.

Discussion

Many institutions, including very large ones, are involved in outsourcing with a private company or another institution. The issue of finding and keeping technical staff is the same even for large organizations with large budgets. Small colleges, however, need to consider outsourcing earlier than large institutions because size matters where economies of scale are concerned. At small institutions, IT costs are disproportionately high. Outsourcing offers a strategy to overcome the constraints of size.

Because the outsourcing partner's capital and operating costs are spread across multiple clients, costs for each client are reduced. Acquiring IT services from external service companies allows a small college to have access to state-of-the-art technology, 24/7 infrastructure and support services and to more expertise than it could possibly hire and retain—and often at lower costs. Other benefits include the ability to access variable depths of expertise when needed, for example during the conversion

or installation of a new administrative system. Since not all expertise is required on a full-time basis, it can be spread across the outsourcing company's client base, along with infrastructure costs. And small colleges can form consortia to outsource services or even course and curricula from each other and from companies.

Rarely do internal IT leaders advocate outsourcing; outsourcing typically requires a presidential decision aimed at improving the level and quality of IT services.

Outsourcing emanates from a strategic focus on core competencies. Traditional business models—vertically integrated, self-sufficient business models—are becoming obsolete. Emerging strategic business models identify a handful of core competencies: the two or three things that an organization does better than any other organization. Non-core competencies are then outsourced to a flexible network of service providers. The modern organization is thus composed of a set of core competencies combined with sophisticated skills that integrate the services of outside organizations into the work of the core organization.

The number-one area of outsourcing in business today is information technology. The second-strongest area is facilities management and other types of administrative activities. The third is customer interface. The reason for outsourcing technology is that the cost of developing technology infrastructures is so enormous and the pace of change so rapid that making this investment on their own is a very high risk for most companies. Such an investment makes more sense for service providers who are making the investment on the part of hundreds of companies. Since IT is their business—their core competency—they are going to stay on the cutting-edge of technology development. Very few organizations can afford to do that. Even if they can, they would probably be better off investing that money somewhere else.

Some CIOs resist the idea of outsourcing, citing the apparently huge cost difference between maintaining internal IT employees and hiring outside resources. But these CIOs miscalculate the cost equation. Research has shown that the cost difference shrinks when recruiting, training, and other hidden costs of internal employees are properly factored into the comparison. Indeed, although many CIOs perceive the multiple of employee-to-contractor costs to be as high as 2.3, the actual multiple is closer to 1.2. Even more significant, the difference in costs practically disappears when factoring in the expense of not having the right IT skills when needed. Rarely, however, do internal IT leaders advocate outsourcing; outsourcing typically requires a presidential decision aimed at improving the level and quality of IT services. Procuring expertise rather than developing it not only controls costs better but also enables more flexible operations.

case 6

A Case Study in Extending: Regis University

The Issue

There are numerous examples of independent institutions that have developed adult-completion or distance-learning programs to increase revenue. Many of these institutions, in fact, were "early adopters" in providing working adults with access to degree programs before such activities became mainstream. Such programs often have different cost structures than the home institution's more traditional programs, and they serve as critical auxiliary revenue sources for the institution.

These students and programs, however, are likely to be the very ones targeted by both new online institutions (for-profit or not) and traditional institutions that are developing distance programs. Both the new providers and the larger universities bring a comparatively larger resource base to bear on these activities, as well as greater "brand" recognition. The question naturally arises whether programs initially developed at small independent institutions, with little or no competition, can successfully compete in today's highly crowded and active online learning market.

Regis's Solution

With its main campus in Denver, Regis University is composed of three primary schools: Regis College, the School for Health Care Professions, and the School for Professional Studies. In the Jesuit tradition, Regis College has served students of traditional college age since 1877. The residential college offers coeducational, liberal arts, and pre-professional programs. The School for Health Care Professions educates both adults and students of traditional college age with programs in Nursing, Physical Therapy, and Health Services Administration & Management. The School for Professional Studies (SPS) was established in the 1970s to offer programs designed specifically for adults. Today, the SPS offers both classroom-based and innovative online courses. As the largest provider of adult learning programs among U.S. Jesuit universities, the SPS serves more than 10,500 adult students worldwide. Undergraduate, graduate, and teacher-education programs, as well as certificates, are available.

The SPS provides a buffet of learning opportunities along with a range of delivery modes and scheduling options. Programs may be individualized, or students may follow one of the already designed degree programs. Courses are offered in five-week, eight-week, or semester formats online or on campus. Using a portfolio approach, students can demonstrate learning acquired earlier in life via work or other experiences and can earn credit for this knowledge. Credit may also be earned through a standardized testing process.

Regis is well aware of the competitive forces it faces in the marketplace today. With a view toward continuous improvement, the SPS has recently decided to consolidate separate marketing units into one Marketing and Admissions Division for the entire school. It is also adding a call center to expand the distance-learning marketing potential beyond the Rocky Mountain region. The SPS is seeking strategic partnerships with other institutions as well as with corporations. Recently it renewed its partnership with Western Governors University (WGU) to supply courses to WGU students. Teachers are encouraged to group together in their districts to form a local cohort. The SPS then partners with the district and potentially provides a small tuition discount. Noncredit options are also available to provide a full range of learning experiences for corporate partners. By building on its strong base, Regis University is committed to maintaining and expanding its role in the online and distance-learning market.

Questions to Consider

- What do small institutions that have developed (or plan to develop) online programs targeted at off-campus audiences offer that differentiates them from the University of Phoenix and other large providers?
- What particular value do small colleges add that may not be available from competitors? How can a student choose from among all the possibilities?
- Is the current student base large enough? Can Regis University, with over 10,000 adults worldwide,

compete against the University of Phoenix, with 105 campuses and with enrollments exceeding 100,000?

- Can other small colleges that do not have programs as large as those at Regis expect to expand them—or even continue? How does a small independent successfully position itself in the online and adult degree-program markets?

Discussion

Like FDU's motivation behind its decision to blend its campus, the primary motivation for Regis to extend its campus was to attract more students. The strategy was successful. Having started by creating programs to serve the military, Regis grew from an institution of 1,000 to one of more than 10,000 in about 10 years.

Saint Leo's FTE in online-degree programs grew from 318 to more than 1,000 in one year. Online enrollment went from seven percent to 24 percent from 1999 to 2000; the university expects 50 percent of all off-campus students to be registered online next year.

The story of Saint Leo University, in Florida, is remarkably similar to that of Regis. A Catholic university struggling for enrollments in the 1970s, Saint Leo made a commitment to serve the military and subsequently grew from an enrollment of about 1,000 to about 10,000 in a ten-year period. Much of Saint Leo's growth has been in the last four years, as a result of online education. The FTE in online-degree programs grew from 318 to more than 1,000 in one year. Online enrollment went from seven percent to 24 percent from 1999 to 2000; the university expects 50 percent of all off-campus students to be registered online next year.

The development of online courses and program delivery can increase enrollment and revenue if properly structured and marketed. Successful business models include programs delivered in an anyplace-anytime mode to meet individual consumers' demands for career-development opportunities or to meet partner organizations' demands for education that can improve organizational performance and reduce education costs. Institutions may be able to attract in-kind investments from partner companies in the form of development, marketing, and delivery services in return for a share of the resulting enrollment revenue.

Neither Regis nor Saint Leo, however, views revenue generation as the primary reason for creating off-campus programs. Neither sees extending the campus as being in conflict with its core mission; rather, both are expanding their missions to reach out to larger audiences. Regis is continuing to pursue its mission to develop leadership in the service to others. Meanwhile, Saint Leo University notes that the original Benedictine monks went to Florida to provide educational opportunities that were not otherwise available to that population. Its off-campus programs are continuing in that historic tradition.

Positioning for the Future

To implement any of the strategies outlined in the case studies, an institution needs all members of its community to be engaged in a process of change. As one symposium participant put it, the primary obstacle to change is not access to money or other resources; the primary obstacle is inertia characterized by a lack of skillful leadership that seriously addresses strategic issues. With strong leadership, some colleges will be able to overcome this inertia. Indeed, it is now possible to point to many examples of how to do so. Senior administrators must set the tone and vision for the institution, focusing the entire institution's attention on the mission-critical goals they seek to achieve.

Presidents need to recognize that the small size of their institutions provides the strategic opportunity to act quickly, continuously, and deliberately in the service of a set of well-specified goals. Unfortunately, many small colleges have adopted university governance and decision-making models based on an industrial division of labor between academic and administrative silos, largely obviating the benefits of their small size. The result is that institutional behavior is literally the sum of its individual parts. New forms of decision-making can break out of this mold and enable institutions to act in a concerted fashion in pursuit of institutional goals. Small communities can get together to create consensus and act. The town meeting, not the committee meeting, should be the norm rather than the exception. The continuous improvement of learning and business processes directly tied to the institutional mission should be the goal that each and every employee strives to achieve and for which each and every employee is held accountable.

Providing the practical support and encouragement necessary for faculty to invest themselves in strengthening their teaching through avenues provided by new technology is critical to achieving new strategic initiatives.

A second obstacle to implementing these new strategies is the lack of appropriate skills and experiences on the part of the faculty. Most faculty in small, residential liberal arts colleges have not experienced learning environments that are significantly influenced by technology in design or delivery. Because turnover rates tend to be low, with many faculty serving for thirty years or more before retirement, they are less likely to encounter innovative teaching strategies via a steady influx of new faculty members. A concerted effort is required to enable faculty to explore and harness the benefits of technology-mediated strategies in the context of the institution's strategic objectives. Faculty need to be educated about the numerous liberal arts resources available on the Web, so that they can facilitate access for students, and about the value of integrating technology within the curriculum as a means of strengthening the liberal arts.

Although training in how to use technology tools is essential for faculty, the big challenge in faculty development will be to incorporate new pedagogic techniques and educational best practices focused on the evolving organizational goals. IT can be a catalyst for the continuing engagement of faculty about good teaching. Faculty members who have developed a comfortable teaching routine over the years will be pushed to reexamine their understanding of teaching and learning. A major challenge is to create the conditions that will lead faculty to regard IT innovations as opportunities rather than threats. If faculty cannot see genuine payoffs in helping them to be better and/or more efficient educators, they may become cynical and resistant to IT initiatives. There is evidence that this is already the case for some faculty. Providing the practical support and encouragement necessary for faculty to invest themselves in strengthening their teaching through avenues provided by new technology is critical to achieving new strategic initiatives.

If an institution plans to implement any of these strategies, the job description of what is expected of a faculty member must change. Faculty will be expected to think seriously about curriculum, pedagogy, and learning outcomes and to transform themselves from "teachers" to "mentors" who orchestrate a range of possible learning options for students. Traditional formulas for allocating faculty workload may not be sensitive

to the increased complexity of faculty work and can serve as a hindrance to innovation. Ultimately, the faculty-reward structure regarding promotion, tenure, merit pay, or other rewards should be examined to make sure that it advances the goals of the institution. In 1990 Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, suggested that scholarship ought to be reconsidered. Now, as higher education begins to experience the challenges and opportunities that have emerged in the new information age, it is even more essential that we redefine faculty work and rewards to reflect new ways of meeting the needs of their institutions in the twenty-first century.

Even in small-college environments, where the student/faculty ratio is low, it is not possible to enable each student to achieve his or her maximum potential. The diversity in students' knowledge bases, abilities, learning styles, personal histories, and goals is simply too great. But creative partnerships with other institutions and organizations, partnerships made possible and mediated by the Internet, now allow progress toward this goal. IT can enable an institution to retain the values of a small college but to add, through partnering, the clout of an institution many times its size. None of this obviates the importance of human interaction in small-college communities. The opportunity these institutions have is to wed high-tech with high-touch. We are fortunate to be living in a time of transition: rare, expensive access to expertise is giving way to abundant, distributed, and relatively inexpensive access to expertise. The Internet is the driver of this transition; it is up to us to seize the opportunities.

IT can enable an institution to retain the values of a small college but to add, through partnering, the clout of an institution many times its size.

As small institutions contemplate their role in the future and consider undertaking one or more of the innovative approaches illustrated by the case studies above, answering the following questions may help them assess their readiness to do so.

Competition

- How do you assess your institution's strengths and weaknesses?
- How do you currently assess your competition? Have you anticipated how changes in the external environment might affect this assessment process?
- How well is your institution positioned to meet the challenges of a changing educational environment that includes online learning and disaggregated service providers?

Attitudes

- Are assumptions about how your institution operates based on the status quo and accepted without question?
- Do most individuals on campus believe that face-to face learning experiences are better than online experiences or that small size means that all students receive individualized or personalized attention?
- Have both faculty and administrators explored what other institutions (including large ones) are doing with IT to improve quality and reduce costs? Or is the "not-invented-here" ideology alive and well on your campus? Are alternatives for implementing academic goals routinely investigated and included as part of the accepted planning process?
- Are all members of the campus community aware of the changing educational expectations of students and other stakeholders?
- Have faculty and administrators thought about the impact of IT on the way in which your institution carries out its mission?

Organization

- What challenges does your institution face that might be addressed by one or more of the six strategies discussed in this paper? Does your institutional culture support and reward such innovative approaches?
- Is your organizational structure and staffing appropriate to adopt one or more of the six strategies for designing new learning environments? What modifications would you need to make in order to take advantage of them?
- Are campus administrators prepared to lead such initiatives? What kinds of training and support are required?

- Do a substantial number of your faculty have an understanding of and some experience with redesigning learning environments for greater student success?
- How would the hiring, training, and evaluation of faculty change if one or more of these strategies became part of the institutional culture?

Collaboration and Partnership

- What issues should be considered before exploring and agreeing to collaborative endeavors? What issues at your institution might inhibit possible partnerships? Can these be resolved?
- Is collaboration seen as a method for exchange and communication or as a route to greater productivity? What factors differentiate these approaches?
- Have you identified complementary strengths and weaknesses among your institution and potential partners?
- Have you considered collaborations and partnerships for appropriate academic areas as well as for administrative functions?

Outsourcing

- What are the core competencies of your institution? Are IT services among them? If not, have you considered outsourcing those services?
- Have you compared the costs of directly providing the IT services your campus needs, including hidden costs and opportunity costs, with the costs of contracting with a variety of external providers for those services?
- Do you want to add new IT-based delivery options to your academic program? Does your current academic leadership and IT staff have the knowledge base to implement these options? If not, have you investigated service organizations that specialize in distributed learning?

Extending

- If you are considering the development of online programs to serve new audiences, what are your institution's academic strengths on which programs can be built? Have you assessed the competition for the target audiences?
- Are your faculty prepared to offer online courses and programs to a nontraditional student body? What services would you need to add to serve off-campus students?
- Do you have a business plan to support both development and ongoing operations? Are revenue-generating ideas analyzed in the context of new competitors and new business models?
- If you are currently offering programs that serve working adult students, how are you positioned to compete in what is becoming a global marketplace for higher education?

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